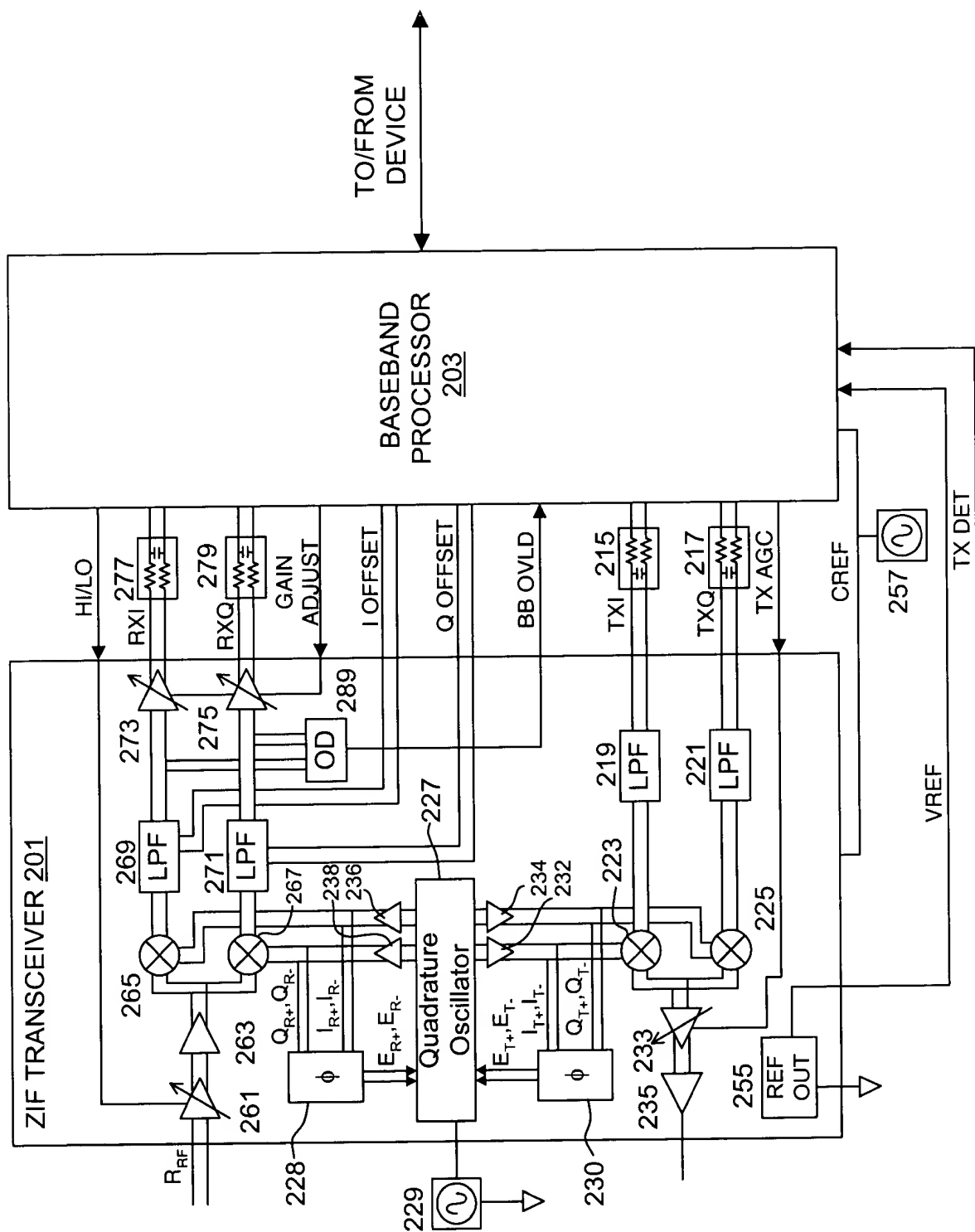


FIG. 1



**FIG. 2**



FIG. 4 is a schematic diagram of a circuit for measuring the concentration of calcium ions in a sample. The circuit includes a differential amplifier 403, a bridge circuit 401, and a feedback circuit 405. The differential amplifier 403 has two inputs, DLO+ and DLO-, and two outputs, Ca+ and Ca-. The bridge circuit 401 includes three inductors, La, Lb, and Lc, and a capacitor C. The feedback circuit 405 includes a resistor R1 and a resistor R2. The circuit is powered by a 229V AC source.

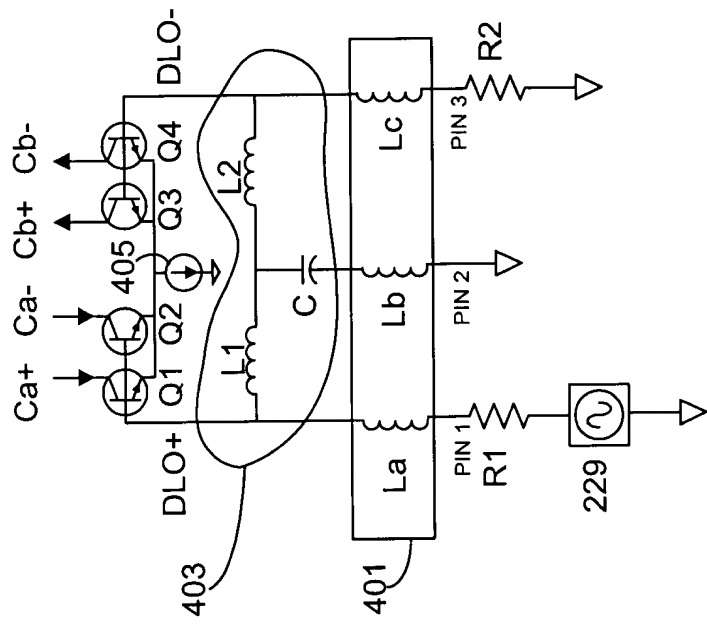


FIG. 4

500

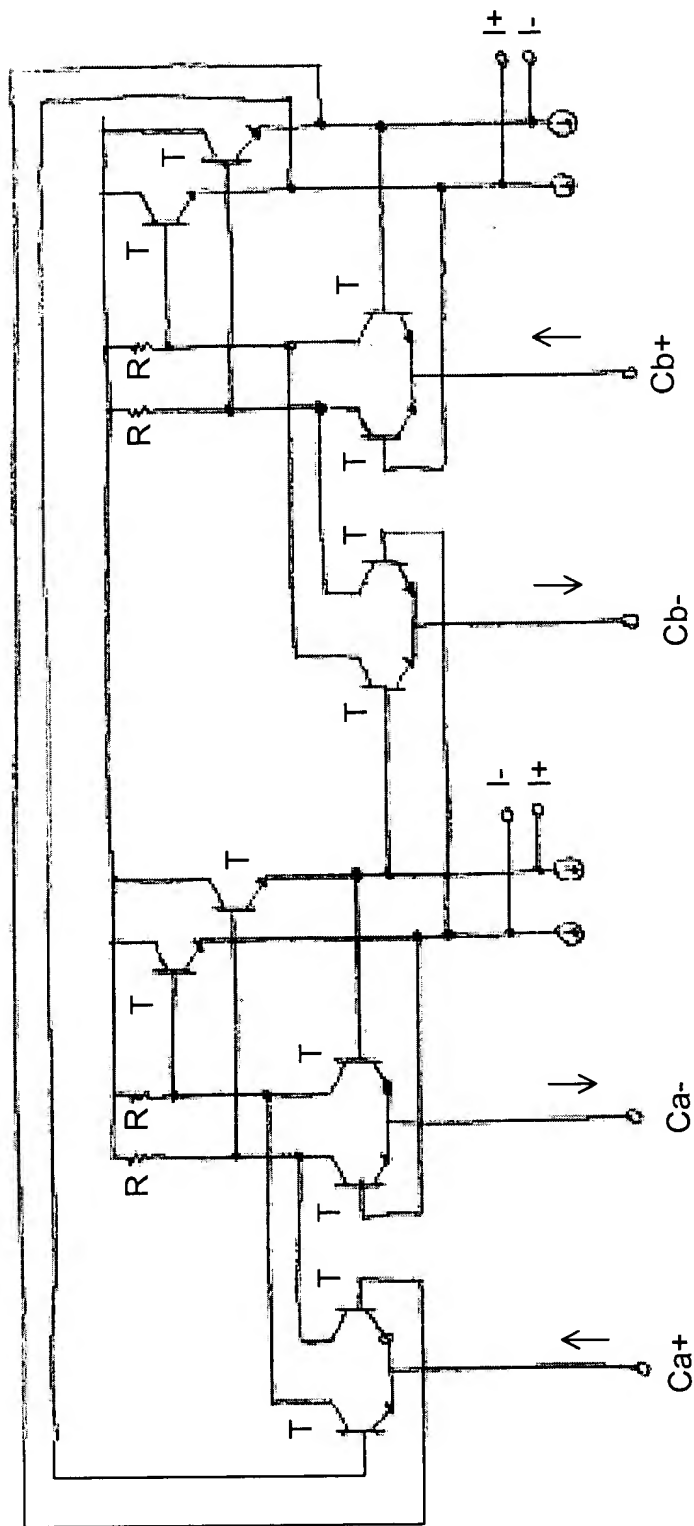


FIG. 5

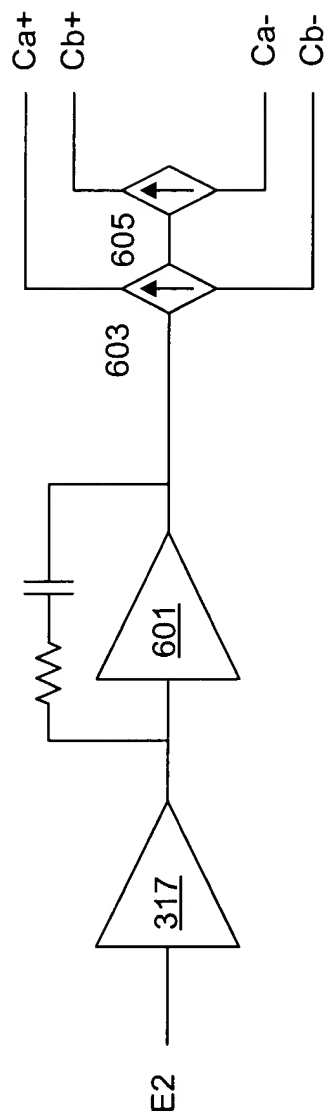


FIG. 6

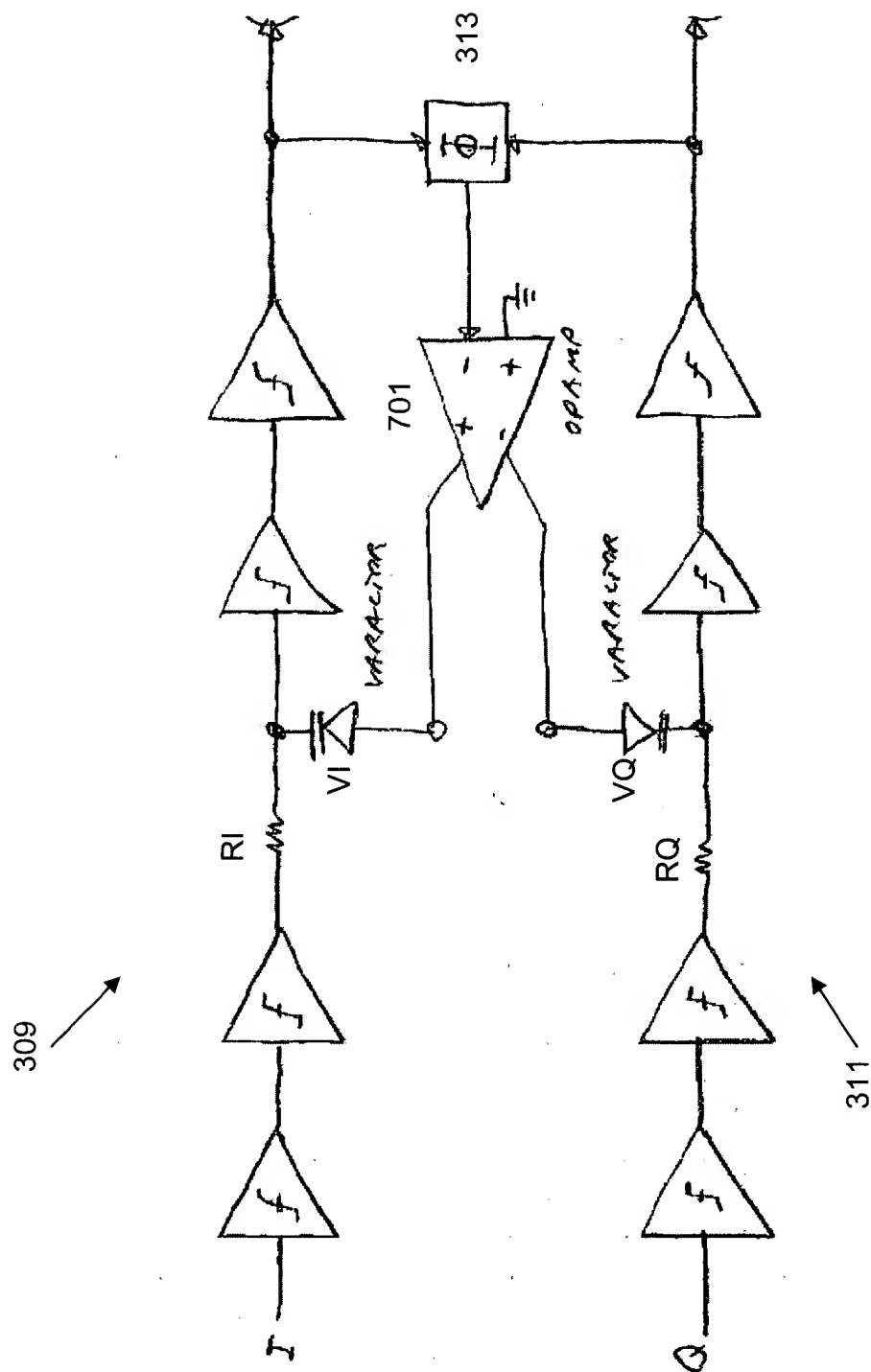
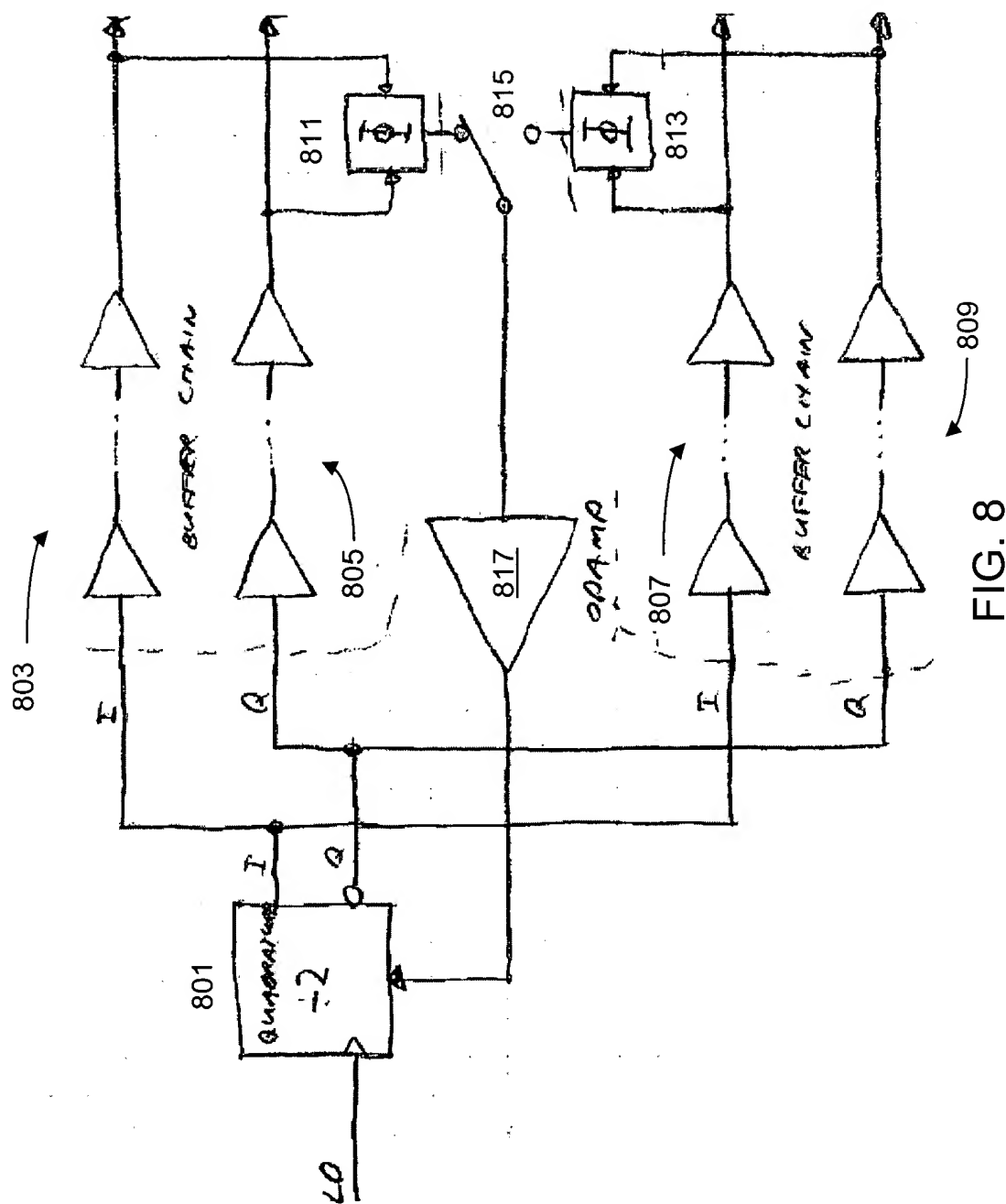


FIG. 7

311





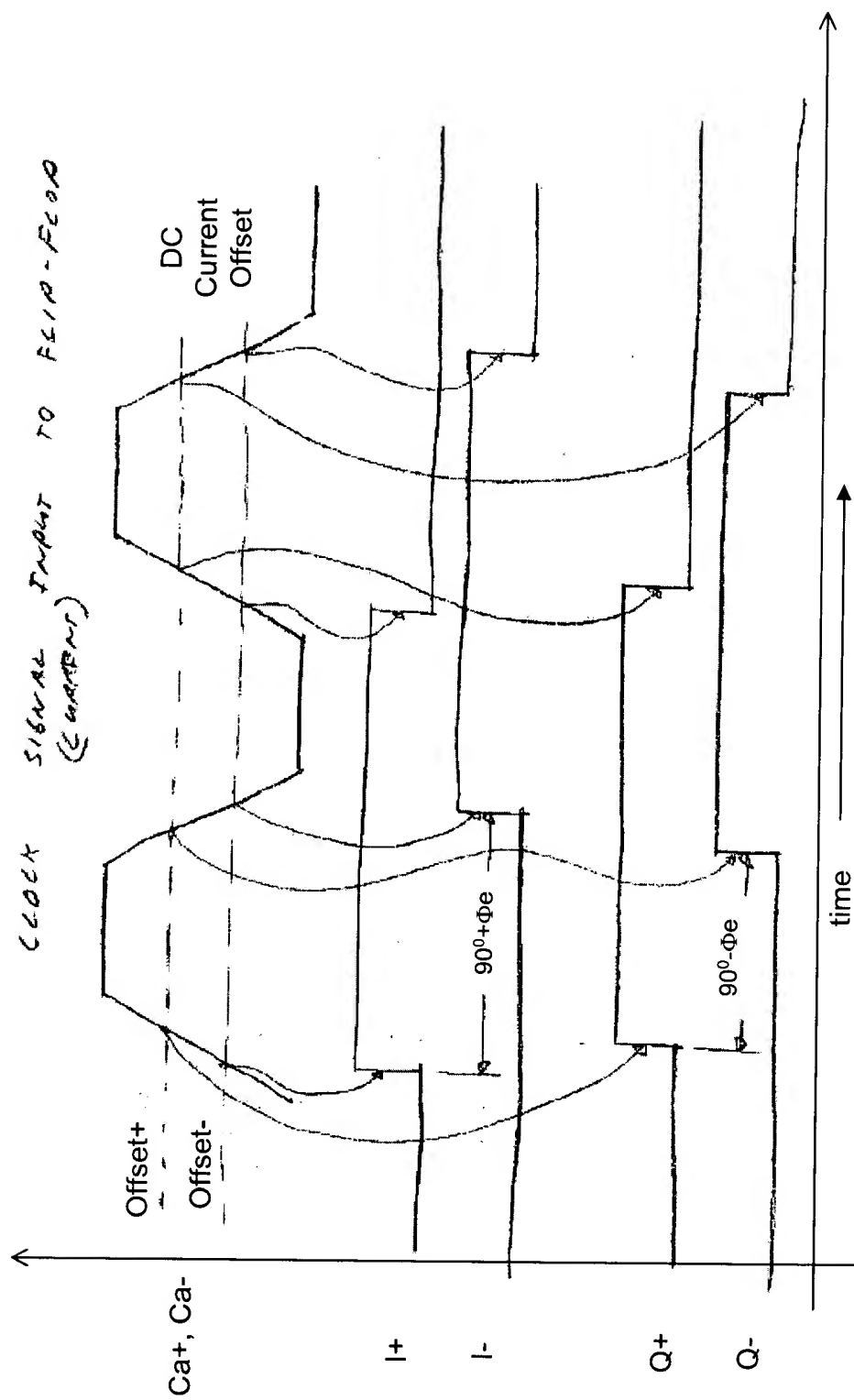


FIG. 9